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# **Six new species of *Chinecallicerus* from China, with a new synonymy (Coleoptera: Staphylinidae: Aleocharinae: Geostibini)**

Volker ASSING

**Abstract:** Six species of *Chinecallicerus* ASSING, 2004 are described and illustrated: *Chinecallicerus carinatus* nov.sp. (China: North Sichuan), *C. orbiculatus* nov.sp. (China: South Sichuan), *C. transversus* nov.sp. (China: North Sichuan), *C. granulosisimus* nov.sp. (China: East Qinghai), *C. grandicollis* nov.sp. (China: Northwest Yunnan), and *C. trituberculatus* nov.sp. (China: Northwest Yunnan). The following synonymy is proposed: *Chinecallicerus schuelkei* ASSING, 2004 = *Aloconota sinica* PACE, 2011, nov.syn. An updated key to the *Chinecallicerus* species is provided. Including the new species, the genus now includes 13 species, eight of which have been recorded from the Chinese province Yunnan, four from Sichuan, and one from Qinghai. All the species are known only from their respective type localities, nine of them are represented solely by their respective holotypes. The distributions of all the species of the genus are mapped.

**Key words:** Coleoptera, Staphylinidae, Aleocharinae, Geostibini, *Chinecallicerus*, China, Yunnan, Sichuan, Qinghai, taxonomy, new species, new synonymy, key to species, distribution map.

## **Introduction**

The genus *Chinecallicerus* ASSING, 2004 of the aleocharine tribe Geostibini was previously represented by seven species, six of them distributed in the Chinese province Yunnan (ASSING 2004, 2006, 2009, 2015) and one in Sichuan (ASSING 2017). All the species are known only from their respective type localities, indicating a cryptic, probably subterranean reproduction habitat. Six of the seven species are represented solely by their respective holotypes.

Since the latest contribution, additional *Chinecallicerus* material has become available from various sources. A study of this material, nine specimens in all, revealed that it was composed of six species, all of them undescribed. Including these new taxa, the genus now includes 13 species distributed in the Chinese provinces Yunnan (7 species), Sichuan (4), and Qinghai (1).

The currently known species of *Chinecallicerus* can all be reliably identified based on external characters alone, so that descriptions based exclusively on females are justifiable. In fact, intrageneric variation of morphological characters such as the shapes of the head and pronotum, the punctuation, coloration, and body size is remarkably pronounced. On the other hand, *Chinecallicerus* share relatively long and often massive antennae with distinctly cylindric antennomeres IV-X, a stout spermatheca with an S-shaped proximal portion, and an aedeagus of rather uniform shape.

## Material and methods

The material treated in this study is deposited in the following collections:

CAS..... Chinese Academy of Sciences, Beijing  
 MMB..... Moravian Museum Brno (P. Baňar)  
 MNB ..... Museum für Naturkunde, Berlin (coll. M. Schülke)  
 NMP..... National Museum Prague (J. Hájek)  
 SCS..... Sichuan University Chengdu, China  
 cAss..... author's private collection

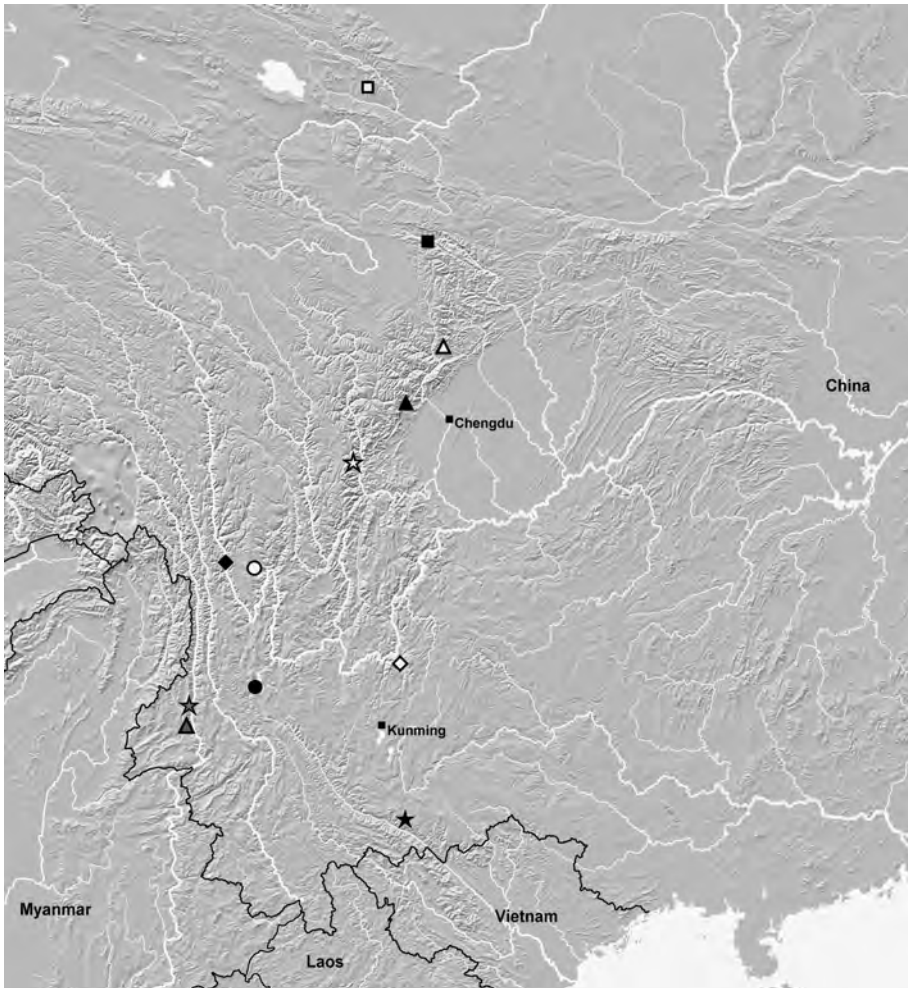
The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss), a Discovery V12 microscope (Zeiss), and a Jenalab compound microscope (Carl Zeiss Jena). The images were created using a digital camera (Nikon Coolpix 995) and AxioCam ERc 5s. The map was created using MapCreator 2.0 (primap) software.

Body length was measured from the anterior margin of the labrum to the abdominal apex, the length of the forebody from the anterior margin of the labrum to the posterior margin of the elytra, head length from the anterior margin of the clypeus (without anteclypeus) to the posterior constriction of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The "parameral" side (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

## Updated key to the species of *Chinecallicerus*

- 1 Largest species of the genus; length of forebody 3.2 mm. Head (except for a glossy median band) and pronotum with conspicuously dense granulate punctation (Figs 18, 24-25). Anterior tergites of abdomen with very dense and rather coarse punctation (Figs 13-14, 19). Spermatheca as in Fig. 15. Qinghai (Map 1).....*granulosissimus* nov.sp.
- Length of forebody 3.0 mm at most. Head and pronotum not with conspicuously dense granulate punctation. Anterior abdominal tergites with less dense and/or finer punctation.....2
- 2 Pronotum large in relation to head and weakly convex in cross-section (Figs 21, 27), at least approximately 1.15 times as broad as long and at least approximately 1.3 times as broad as head. Head distinctly transverse.....3
- Pronotum smaller in relation to head and more strongly convex, significantly less than 1.15 times as broad as long and less than 1.3 times as broad as head.....5
- 3 Abdominal tergite VI with pronounced anterior impression (Fig. 23). Head (Fig. 21) approximately 1.2 times as broad as long. Pronotum (Fig. 21) approximately 1.15 times as broad as long and 1.3 times as broad as head, with fine, but distinct punctation. Elytral punctation extremely dense and somewhat asperate. Larger species; length of forebody 2.7-3.0 mm. Antennae (Fig. 22) long and slender; antennomeres IV-X distinctly oblong. Spermatheca as in Fig. 16. North Sichuan (Map 1).....*transversus* nov.sp.
- Abdominal tergite VI without anterior impression (Figs 29, 37). Head (Figs 27, 34) less transverse, 1.12-1.13 times as broad as long. Pronotum (Figs 27, 34) relatively larger, at least nearly 1.4 times as broad as head. Elytral punctation not asperate. Smaller species; length of forebody 2.1-2.2 mm. Antennae (Figs 28, 35) much shorter and much more massive, antennomeres VI-VIII transverse. Northwest Yunnan.....4
- 4 Pronotum (Fig. 34) conspicuously large, 1.6 times as broad as head; middle of posterior margin distinctly produced; punctation fine, but distinct. Antennomere IV weakly oblong; antennomere X weakly transverse (Fig. 35). Punctuation of elytra granulate (Fig. 34). Maxillary palpomere III dilated. Male tergites III, IV, and VII each with a pronounced median tubercle posteriorly (Figs 36-37). Median lobe of aedeagus as in Figs 50-51. Gaoligong Shan (Map 1).....*trituberculatus* nov.sp.

- Pronotum approximately 1.4 times as broad as head (Fig. 27); middle of posterior margin not produced; punctation extremely fine, visible only at high magnification. Elytral punctation fine, defined, not granulose (Fig. 27). Antennomere IV transverse; antennomere X as long as broad (Fig. 28). Maxillary palpomere III slender. Spermatheca as in Fig. 32. Gaoligong Shan (Map 1). .....*grandicollis* nov.sp.
- 5 Head (Fig. 8) of orbicular shape, slightly longer than broad; lateral margins behind eyes smoothly convex, posterior angles obsolete. Eyes (Fig. 9) flat, not protruding from lateral contours of head, and very small, less than 0.3 times as long as postocular region in dorsal view. Elytra (Fig. 8) short, approximately 0.75 times as long as pronotum. Posterior margin of abdominal tergite VII only with narrow rudiment of a palisade fringe. Antennae (Fig. 10) slender; antennomeres IV-X all longer than broad. Spermatheca as in Fig. 12. Sichuan (Map 1). .....*orbiculatus* nov.sp.
- Head of different shape; posterior angles at least weakly indicated. Eyes distinctly convex and much larger, more than half as long as postocular region in dorsal view. Elytra longer. Posterior margin of tergite VII with distinct palisade fringe. ....6
- 6 Large species, length of body 6.5-7.0 mm. Antennae gradually incrassate, antennomere V distinctly narrower than X (ASSING 2006: figure 15). Punctuation of abdomen conspicuously sparse (ASSING 2006: figure 19). Male tergites III and IV with distinct tubercle (ASSING 2006: figures 18-19); tergite VII with U-shaped elevation (ASSING 2006: figure 20); median lobe of aedeagus approximately 0.7 mm long (ASSING 2006: figures 23-24). Spermatheca as in ASSING (2006: figure 27). Northwest Yunnan (Map 1). ..... *wrasei* ASSING
- Smaller species, length of body < 5.8 mm. Antennomeres V-X of subequal width, V not distinctly narrower than X. Punctuation of anterior abdominal tergites moderately dense. Male tergites III and IV unmodified; tergite VII with tubercle of different shape; median lobe of aedeagus much smaller, < 0.6 mm (note that the males of *C. schuelkei* and *C. reticulatus* are unknown). ....7
- 7 Whole forebody with pronounced microsculpture, practically matt (ASSING 2015: figures 1-2, 4, 10-11, 13). Head and pronotum with barely noticeable punctation. East Yunnan. ....8
- Forebody with some shine; at least head or elytra with superficial microculpture. Head and/or pronotum mostly with more distinct punctation. West Yunnan, Sichuan. ....10
- 8 Body larger; length of forebody 2.4 mm. Antenna longer, 2.4-2.5 mm long; all antennomeres distinctly oblong (ASSING 2015: figure 12). Eyes more strongly convex and larger, longer than distance between posterior margin of eye to posterior constriction of head (ASSING 2015: figure 10). Spermatheca as in ASSING (2015: figure 15). Southeast Yunnan (Map 1). .....*reticulatus* ASSING
- Body smaller; length of forebody 2.1 mm long at most. Antennae shorter, 1.8 mm long at most; at least antennomeres IV-VIII weakly transverse or as long as broad. Eyes less convex and smaller, approximately as long as distance between posterior margin of eye to posterior constriction of head at most. ....9
- 9 Maxillary palpi blackish-brown, except for the needle-shaped palpomere IV. Antennae blackish and longer, approximately 1.8 mm long; antennomeres VI-X not transverse, X even somewhat oblong (ASSING 2015: figure 3). Male tergite VII with small median tubercle (ASSING 2015: figure 5). Posterior margin of male tergite VIII truncate in the middle (ASSING 2015: figure 6). Median lobe of aedeagus as in ASSING (2015: figures 8-9). Northeast Yunnan (Map 1). .....*subater* ASSING
- Maxillary palpi yellowish. Antennae reddish to reddish-brown and approximately 1.5 mm long; antennomeres IV-X at least weakly transverse (Fig. 1). Male tergite VII with long median carina posteriorly (Figs 2-3). Male tergite VIII with smoothly convex posterior margin (Fig. 2). Median lobe of aedeagus as in Figs 4-5. Spermatheca as in Fig. 6. North Sichuan (Map 1). .....*carinatus* nov.sp.
- 10 Coloration paler: anterior abdominal segments, abdominal apex, and antennae yellowish-brown to reddish-brown. Eyes weakly bulging and smaller, distinctly shorter than postocular region in dorsal view. Elytra with granulose punctation and weak longitudinal elevation on either side of suture (ASSING 2004: figure 8). Spermatheca as in ASSING (2004: figure 13). Northwest Yunnan (Map 1). .....*schuelkei* ASSING



**Map 1:** Distributions of *Chinecallicerus* species in China: *C. wrasei* (black diamond); *C. schuelkei* (white circle); *C. laevigatus* and *C. serratus* (both black circle); *C. subater* (white diamond); *C. reticulatus* (black star); *C. pinnatus* (black triangle); *C. grandicollis* (grey star); *C. carinatus* (white triangle); *C. orbiculatus* (white star); *C. transversus* (black square); *C. granulosissimus* (white square); *C. trituberculatus* (grey triangle).

- Coloration darker: abdomen and antennae blackish-brown to blackish. Eyes bulging and larger, approximately as long as postocular region in dorsal view. Elytra with fine, not distinctly granulose punctation.....11
- 11 Antennomere IV approximately as long as wide, V-X oblong (ASSING 2006: figure 3). Elytra at suture distinctly longer than pronotum. Legs yellowish. Posterior margin of male tergite VIII produced in the middle and somewhat truncate, but not distinctly serrate (ASSING 2006: figure 8). Median lobe of aedeagus 0.53 mm long, shaped as in ASSING (2006: figures 10-11). West Yunnan (Map 1). ..... *laevigatus* ASSING
- Antennomere IV wider than long (ASSING 2017: figure 2). Elytra approximately as long as, or shorter than pronotum (ASSING 2017: figure 1). Coloration of mid- and hindlegs predominantly brown. Posterior margin of tergite VIII serrate or bicuspidate. ....12

- 12 Larger species; length of forebody 2.4 mm. Antennae longer, length 2.0 mm; antennomeres V-X weakly oblong (ASSING 2017: figure 2). Head and pronotum glossy (ASSING 2017: figure 1). Elytra shorter than pronotum (ASSING 2017: figure 1). Anterior half of tergite VII with sparse, but distinct punctation (ASSING 2017: figure 4). Male tergite VII (ASSING 2017: figures 3-4) with pronounced fin-shaped median tubercle. Male tergite VIII bicuspidate posteriorly (ASSING 2017: figure 4). Median lobe of aedeagus larger, 0.6 mm long, and shaped as in ASSING (2017: figures 5-6). Sichuan (Map 1). .....*pinnatus* ASSING
- Smaller species; length of forebody 2.2 mm. Antennae shorter, antennomeres V-X approximately as long as wide or weakly transverse (ASSING 2009: figure 3). Head and pronotum with subdued shine. Elytra approximately as long as pronotum (ASSING 2009: figure 2). Abdominal tergite VII virtually impunctate in anterior half (ASSING 2009: figure 4). Male tergite VII with small smooth median tubercle. Posterior margin of tergite VIII serrate (ASSING 2009: figure 5). Median lobe of aedeagus smaller, 0.44 mm long, shaped as in ASSING (2009: figure 7). West Yunnan (Map 1). .....*serratus* ASSING

### New synonymy

#### *Chinecallicerus schuelkei* ASSING, 2004 (Map 1)

*Chinecallicerus schuelkei* ASSING, 2004: 7 f.

*Aloconota sinica* PACE, 2011: 202; **nov.syn.**

**C o m m e n t :** The original description of *Aloconota sinica* is based on a unique male from "China: N-Yunnan, Zhongdian Co., 33 km ESE Zhongdian, 27°41.5'N 100°00.7'E, 3200 m, 24.VIII.2003" (PACE 2011). The description of *Chinecallicerus schuelkei* is based on a female collected in the same locality and on the same date as the holotype of *A. sinica*. Based on the illustrations provided by PACE (2011), the holotype of *A. sinica* is undoubtedly conspecific with that of *C. schuelkei*; hence the synonymy proposed above. For illustrations of the male primary and secondary sexual characters of *C. schuelkei* see figures 47-49 in PACE (2011).

### Descriptions

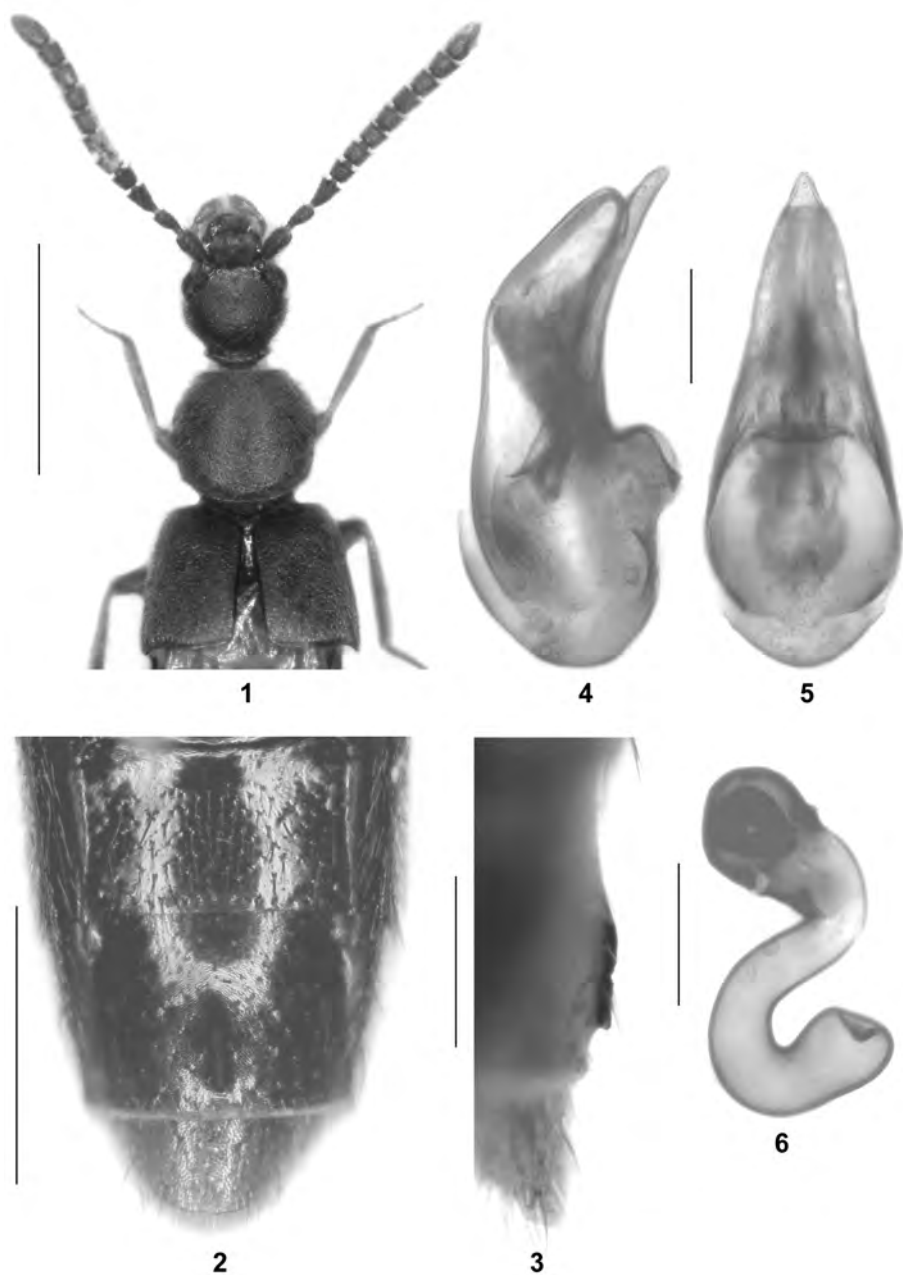
#### *Chinecallicerus carinatus* nov.sp. (Figs 1-6, Map 1)

**Type material:** Holotype ♂: "CHINA N Sichuan, Xiao Zhaizi National Nature Reserve, 7 km W of Qingpianxiang, 1560-1700 m, Xiaozhaizi, 27.6.-1.7.2017, FIT, 32°1'25"N 103°56'21"E, lgt. P. Kabátek, O. Konvička, P. Viktora / Holotypus ♂ *Chinecallicerus carinatus* sp.n., det. V. Assing 2017" (SCS). Paratypes: 1♂, 1♀: same data as holotype (MMB, cAss).

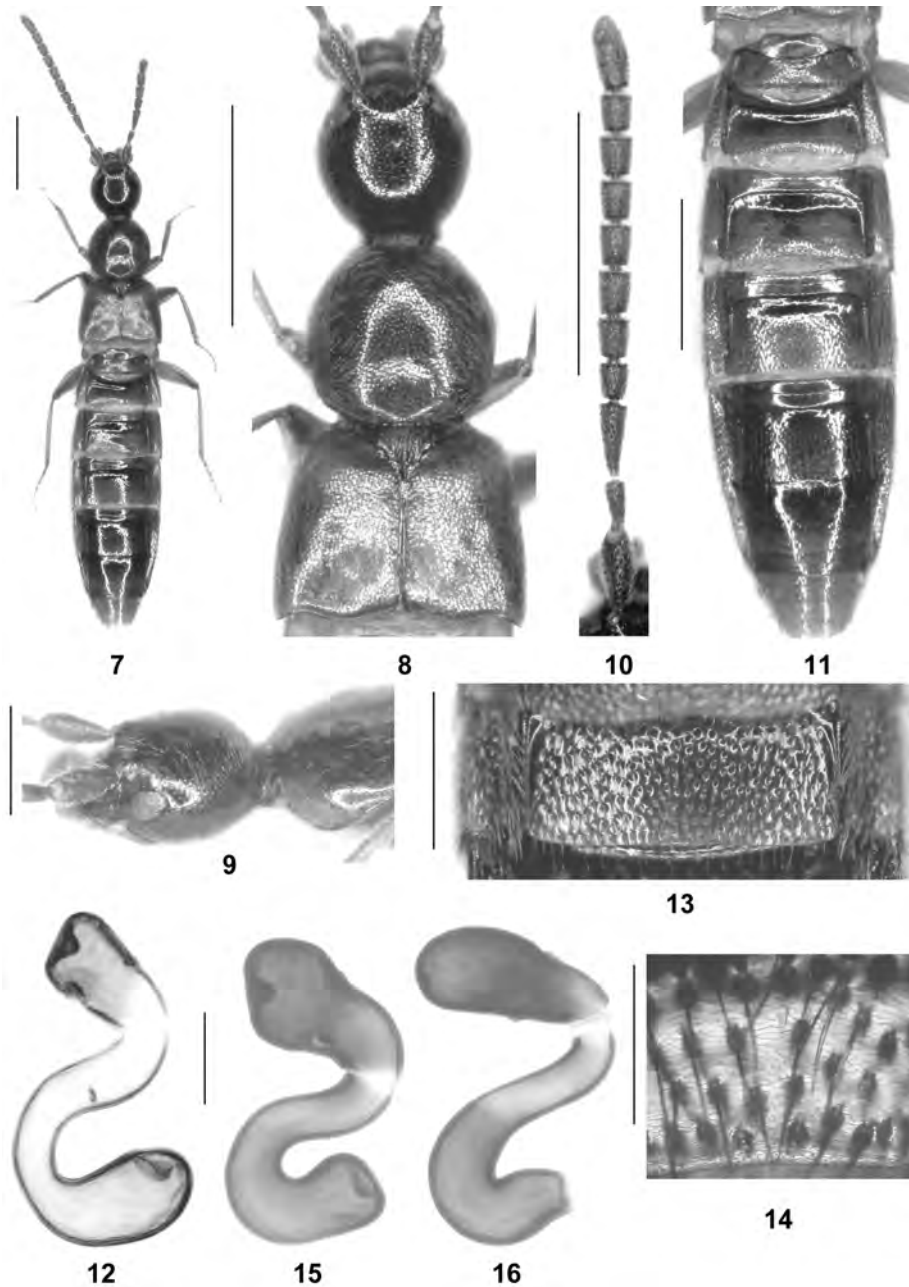
**E t y m o l o g y :** The specific epithet (Latin, adjective) alludes to the sharp median carina on the male tergite VII.

**D e s c r i p t i o n :** Body length 3.8-4.5 mm; length of forebody 1.9-2.0 mm. Coloration: head blackish; pronotum dark reddish-brown; elytra pale-brown; abdomen blackish with the apex and mostly also the anterior segments somewhat paler; legs yellow; antennae reddish to brown with the basal antennomeres at least slightly paler; maxillary palpi yellowish.

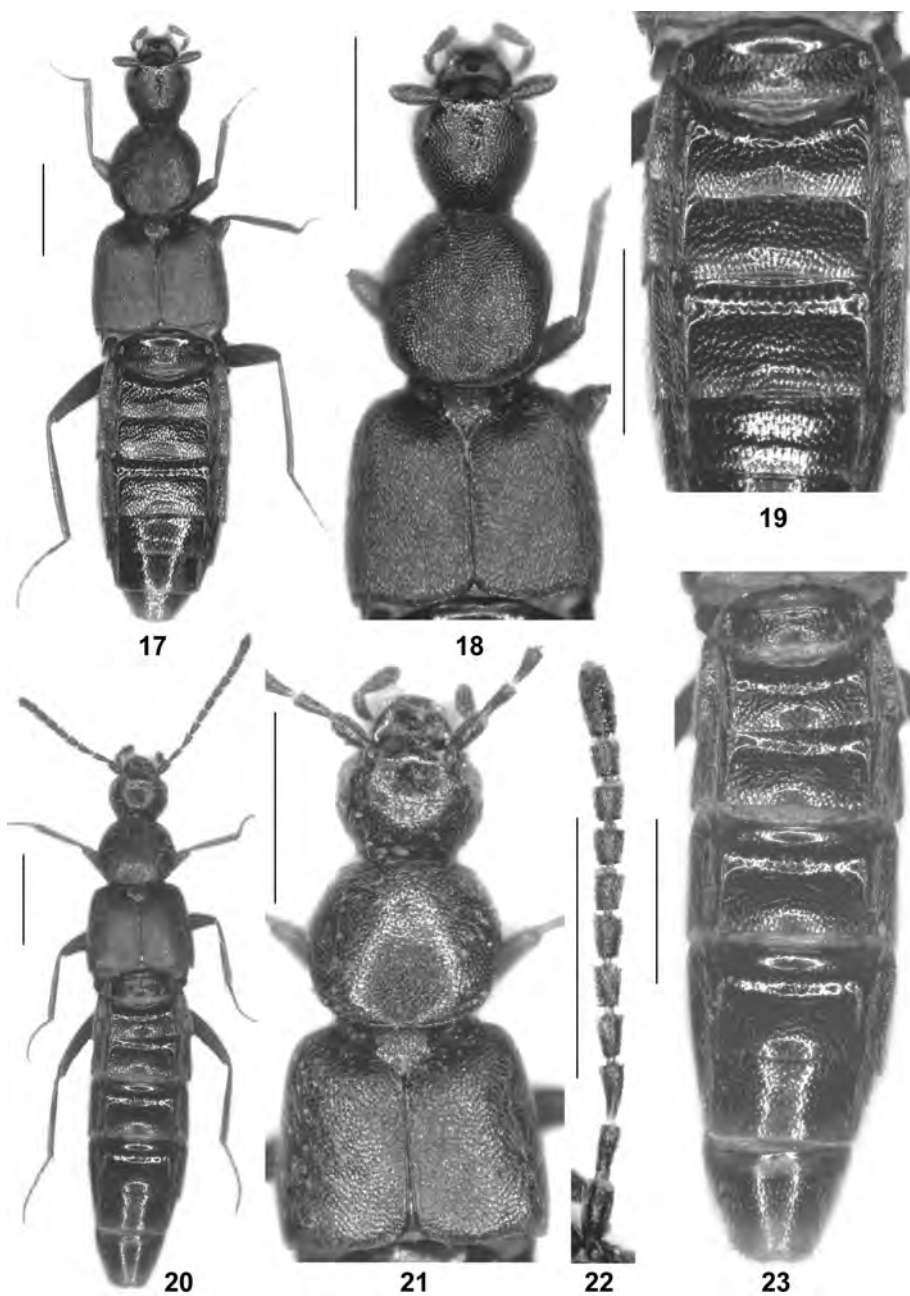
Head (Fig. 1) approximately as long as broad and of subquadrate shape; punctation very fine, barely noticeable in the pronounced microreticulation; dorsal surface practically matt. Eyes moderately convex and rather small, much shorter than distance from posterior margin of eye to posterior constriction of head in dorsal view. Antenna (Fig. 1) approximately 1.5 mm long; antennomeres IV more distinctly, V-X weakly transverse.



**Figs 1-6:** *Chinecallicerus carinatus*; forebody (1); male abdominal segments VI-VIII (2); male abdominal tergites VII-VIII in lateral view (3); median lobe of aedeagus in lateral and in ventral view (4-5); spermatheca (6). Scale bars: 1: 1.0 mm; 2: 0.5 mm; 3: 0.2 mm; 4-6: 0.1 mm.

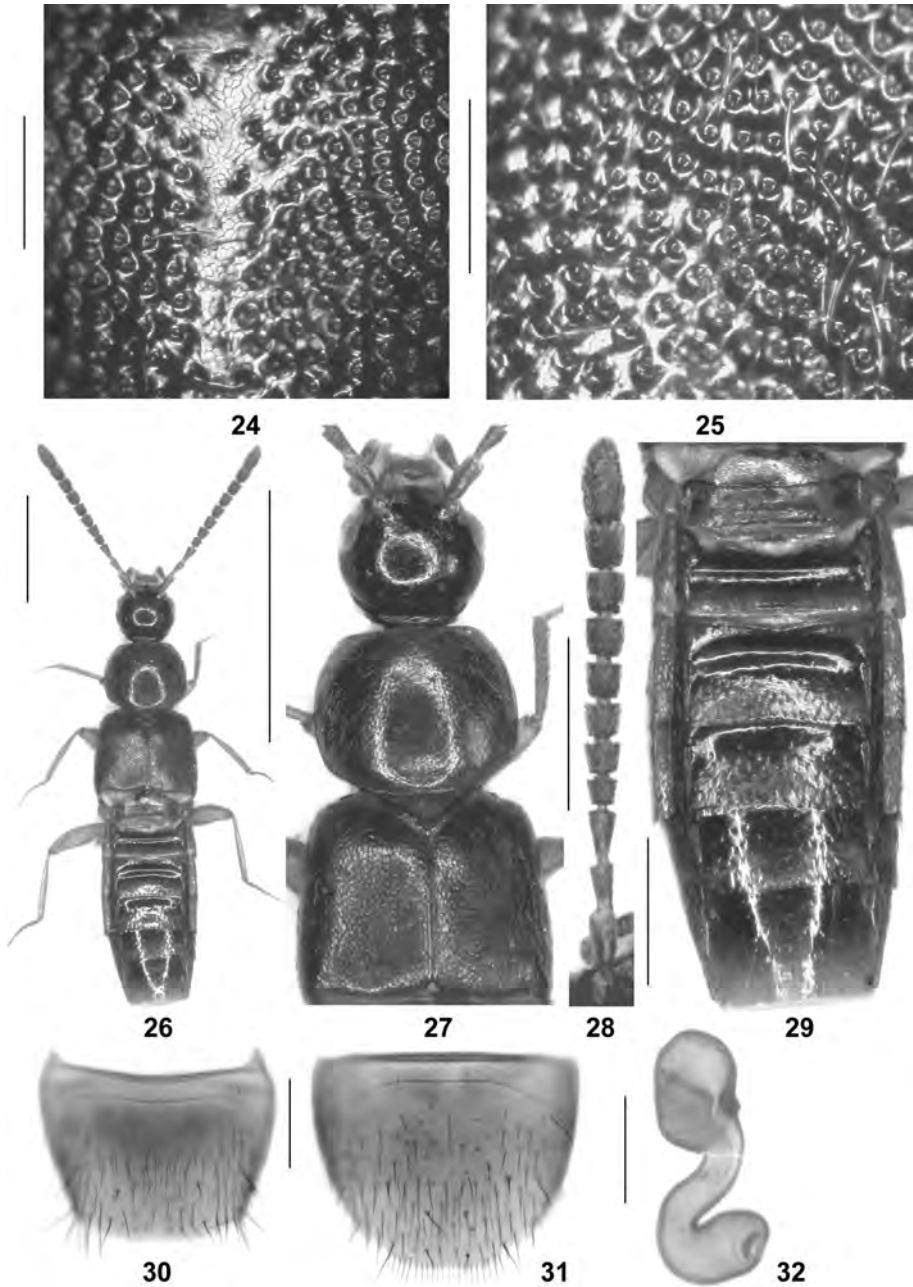


**Figs 7-16:** *Chinecallicerus orbiculatus* (7-12), *C. granulosisissimus* (13-15), and *C. transversus* (16): habitus (7); forebody (8); head in lateral view (9); antenna (10); abdomen (11); spermatheca (12, 15-16); tergite IV (13); postero-median portion of tergite IV (14). Scale bars: 7-8, 10-11: 1.0 mm; 9, 13: 0.5 mm; 12, 14-16: 0.1 mm.

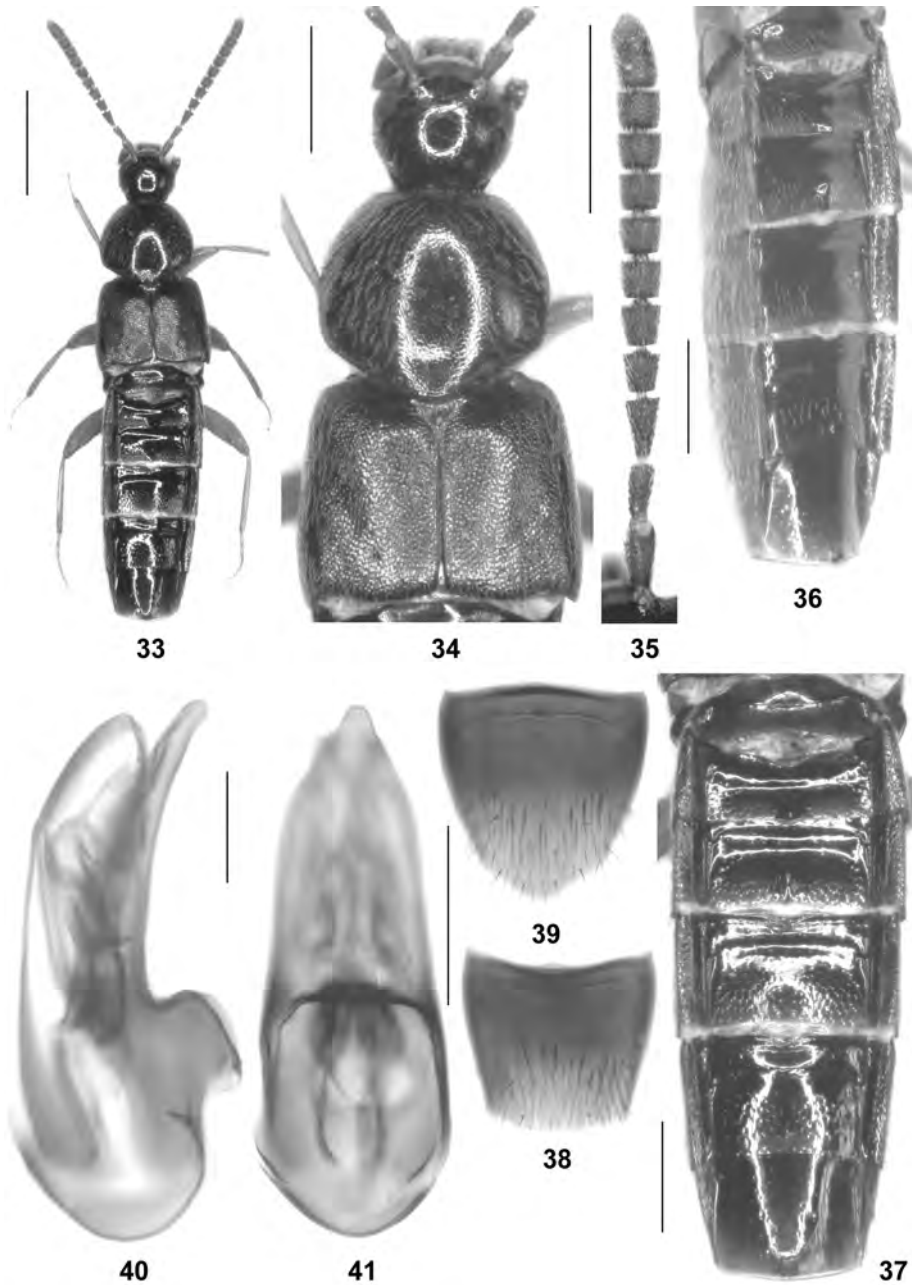


**Figs 17-23:** *Chinecallicerus granulosissimus* (17-19) and *C. transversus* (20-23): habitus (17, 20); forebody (18, 21); anterior portion of abdomen (19); antenna (22); abdomen (23). Scale bars: 1.0 mm.





**Figs 24-32:** *Chinecallicerus granulosissimus* (24-25) and *C. grandicollis* (26-32): antero-median portion of head (24); postero-lateral portion of abdomen (25); habitus (26); forebody (27); antenna (28); abdomen (29); female tergite VIII (30); female sternite VIII (31); spermatheca (32). Scale bars: 26-27: 1.0 mm; 28-29: 0.5 mm; 30-31: 0.2 mm; 24-25, 32: 0.1 mm.



**Figs 33–41:** *Chinecallicerus trituberculatus*: habitus (33); forebody (34); antenna (35); abdomen in dorsal view (36); abdomen in dorso-lateral view (37); male tergite VIII (38); male sternite VIII (39); median lobe of aedeagus in lateral and in ventral view (40–41). Scale bars: 33: 1.0 mm; 34–39: 0.5 mm; 40–41: 0.1 mm.

Pronotum (Fig. 1) weakly transverse, barely 1.1 times as broad as long and 1.3-1.4 times as broad as head, broadest slightly before middle; punctation and microsculpture similar to those of head; surface practically matt; pubescence of midline directed caudad.

Elytra (Fig. 1) approximately 0.9 times as long as pronotum; punctation very dense and very fine, barely noticeable in the pronounced microreticulation; surface nearly matt. Hind wings fully developed.

Abdomen narrower than elytra; punctation moderately dense and fine on tergites III-VI, very sparse on tergite VII; transverse microsculpture very shallow on tergites III-VI, more distinct on tergite VII; tergites III and IV without sexual dimorphism; posterior margin of tergite VII with palisade fringe.

♂: tergite VII with sharp and relatively long median carina posteriorly (Figs 2-3); posterior margin of tergite VIII smoothly convex (Fig. 2); sternite VIII with strongly convex posterior margin; median lobe of aedeagus 0.45 mm long and shaped as in Figs 4-5.

♀: tergite VIII shaped as in male; sternite VIII with broadly and weakly convex posterior margin; spermatheca shaped as in Fig. 6.

**Distribution and natural history:** The type locality is situated in Xiao Zhaizi National Nature Reserve (China: North Sichuan) (Map 1). The specimens were collected with a flight interception trap at an altitude of 1560-1700 m.

***Chinecallicerus orbiculatus* nov.sp.** (Figs 7-12, Map 1)

**Type material:** Holotype ♀ [slightly teneral]: "P. R. CHINA, Sichuan, NE slope Gongga Shan, N29°50'50" E102°02'28", 18.iv.2011, 3170 m, sift21, V. Grebennikov / Holotypus ♀ *Chinecallicerus orbiculatus* sp. n., det. V. Assing 2018" (CAS).

**E t y m o l o g y :** The specific epithet (Latin, adjective) alludes to the orbicular shape of the head.

**Description:** Body length 6.6 mm; length of forebody 2.6 mm. Habitus as in Fig. 7. Coloration (note that the holotype is slightly teneral): head dark-brown; pronotum reddish-brown; elytra dark-yellowish; abdomen dark-yellowish with the antero-median portions of tergites III-V, most of tergite VI, and the anterior half of tergite VII somewhat infusate; legs and maxillary palpi yellow; antennae yellowish-brown.

Head (Figs 8-9) of conspicuously orbicular shape, 1.05 times as long as broad; lateral margins behind eyes smoothly convex in dorsal view, i.e., posterior angles completely obsolete; punctation dense and very fine; interstices with shallow microreticulation. Eyes flat, not protruding from lateral contours of head, and very small, less than one-third as long as distance from posterior margin of eye to posterior constriction of head in dorsal view. Antenna (Fig. 10) long and slender, 2.4 mm long; antennomeres IV-X all longer than broad.

Pronotum (Fig. 8) as long as broad and 1.17 times as broad as head, broadest in anterior half, in postero-median portion somewhat impressed; punctation dense and fine, though somewhat more distinct than that of head; microsculpture nearly obsolete, barely visible even at a magnification of 100 x.

Elytra (Fig. 8) rather short, 0.75 times as long as pronotum; punctation dense, fine, and defined; microsculpture very shallow, visible only at high magnification. Hind wings not examined, probably reduced.

Abdomen (Fig. 9) noticeably broader than elytra; tergites with very shallow anterior impressions; tergite IV without anterior impression; punctation fine, dense on anterior tergites, decreasing in density towards apex of abdomen, rather sparse on tergite VII; interstices with very shallow and fine transverse microsculpture visible only at high magnification (100 x); posterior margin of tergite VII with very narrow rudiment of a palisade fringe.

♂: unknown.

♀: posterior margin of tergite VIII smoothly convex; sternite VIII distinctly concave in the middle; spermatheca shaped as in Fig. 12.

**Comparative notes:** This species is distinguished from all its congeners by numerous characters, particularly its orbicular head, small and flat eyes, shorter elytra, a rudimentary palisade fringe at the posterior margin of tergite VII, and the shape of the spermatheca. It additionally differs from most species of the genus by more slender antennae, paler coloration, and a more glossy forebody.

**Distribution and natural history:** The type locality is situated in the Gongga Shan, Sichuan (Map 1). The holotype was sifted at an altitude of 3170 m. The reduced palisade fringe at the posterior margin of tergite VII and the reduced eye size suggest that the species is incapable of flight.

***Chinecallicerus granulosissimus* nov.sp.** (Figs 13-15, 17-19, 24-25, Map 1)

**Type material:** Holotype ♀ [both antennae missing]: "CHINA: Qinghai province, Yunning Si (lamasery), 2890 m, 36°45.6'N, 102°10.6'E (GPS), 1.-2.VII.2005, J. Hájek, D. Král & J. Růžička leg. / [Ch 10], individually under stones, under excrements and on vegetation on the pasture and along the path to a village / Holotypus ♀ *Chinecallicerus granulosissimus* sp.n., det. V. Assing 2018" (NMP).

**Etymology:** The specific epithet is the superlative of the Latin adjective *granulosus*. It alludes to the conspicuously dense granulate punctation of the head and pronotum.

**Description:** Largest species of the genus; body length 6.8 mm; length of forebody 3.2 mm. Habitus as in Fig. 17. Coloration: head and pronotum blackish; elytra pitchy-reddish with the vicinity of the scutellum and the anterior margins diffusely darker; abdomen blackish with the posterior margins of the segments rather broadly reddish; legs pale reddish-brown.

Head (Figs 18, 24) slender, oblong, 1.05 times as long as broad, and of subtrapezoid shape, broadest across eyes; lateral margins behind eyes converging posteriad and nearly straight; punctation very densely granulate, along middle of dorsal surface with a glossy, nearly impunctate band with shallow microreticulation. Eyes strongly convex, approximately 0.7 times as long as distance from posterior margin of eye to posterior constriction of head in dorsal view.

Pronotum (Figs 18, 25) as long as broad and 1.37 times as broad as head; punctation densely granulate; surface practically matt.

Elytra (Fig. 18) approximately 0.9 times as long as pronotum; punctation extremely dense, ill-defined (confluent), and somewhat rugose; surface matt. Hind wings probably fully developed (not examined).

Abdomen (Fig. 19) narrower than elytra; tergites III-V with moderately deep anterior

impressions anteriorly, punctation rather coarse, conspicuously dense on anterior tergites, decreasing in density towards apex of abdomen, rather sparse on tergite VII; interstices with very shallow microreticulation visible only at high magnification (100 x); posterior margin of tergite VII with palisade fringe.

♂: unknown.

♀: posterior margin of tergite VIII obtusely pointed in the middle; sternite VIII weakly concave in the middle; spermatheca shaped as in Fig. 15.

**Comparative notes:** This species is distinguished from all its congeners by its large size in combination with the dense granulate punctation of the head and pronotum alone. In addition, it is characterized by the shape of the head, dense and coarse punctation of the anterior portion of the abdomen, and by the shape of the spermatheca.

**Distribution and natural history:** The type locality is situated in the extreme east of Qinghai province (China), not far from the border with Gansu (Map 1). The holotype was found at an altitude of 2890 m, probably under a stone.

***Chinecallicerus transversus* nov.sp.** (Figs 16, 20-23, Map 1)

**Type material:** Holotype ♀: "CHINA: N-Sichuan, Minshan Mts, Baima pass, 3000 m, 5.-20.VII.2005 [collector not specified] / Holotypus ♀ *Chinecallicerus transversus* sp.n., det. V. Assing 2018" (cAss). Paratype ♀: same data as holotype (cAss).

**Etymology:** The specific epithet (Latin, adjective) alludes to the distinctly transverse head and pronotum.

**Description:** Body length 6.7-7.6 mm; length of forebody 2.9-3.0 mm. Habitus as in Fig. 20. Coloration: forebody blackish with the postero-sutural portions of the elytra slightly paler, more or less distinctly and more or less extensively pitchy-reddish; abdomen blackish, with the posterior margins of tergites III-VI indistinctly and very narrowly, those of tergites VII-VIII more distinctly and more broadly dark-reddish; legs brown with dark-yellowish tarsi; antennae and maxillary palpi dark-brown to blackish-brown.

Head (Fig. 21) distinctly transverse, approximately 1.2 times as broad as long; punctation dense and fine, but distinct; interstices with distinct microreticulation. Eyes distinctly convex and protruding from lateral contours of head, 0.7-0.8 times as long as postocular region in dorsal view. Antenna (Fig. 22) long and slender, approximately 2.4 mm long; antennomeres IV-X all distinctly oblong.

Pronotum (Fig. 21) distinctly transverse and large in relation to head, approximately 1.15 times as broad as long and nearly 1.3 times as broad as head, broadest slightly anterior to middle; disc very weakly convex in cross-section; punctation dense and rather fine, slightly more distinct than that of head; microsculpture practically obsolete.

Elytra (Fig. 21) large, approximately as long as pronotum; punctation very dense and slightly asperate; interstices with microsculpture. Hind wings fully developed.

Abdomen (Fig. 23) narrower than elytra; tergites III-VI with pronounced anterior impressions; punctation moderately fine and dense, only slightly sparser on tergite VII than on anterior tergites; anterior impressions of tergites III-VI with sparse and very fine punctation; fine transverse microsculpture present in places, but nearly obsolete, visible

only at high magnification (100 x); posterior margin of tergite VII with palisade fringe.

♂: unknown.

♀: posterior margin of tergite VIII distinctly concave in the middle; posterior margin of sternite VIII broadly and distinctly concave in the middle; spermatheca (Fig. 16) with long and slender distal portion.

**Comparative notes:** This species is distinguished from all its congeners by a distinctly transverse head, a large, transverse, and weakly convex (cross-section) pronotum, long and slender antennae, the presence of a pronounced anterior impression on the abdominal tergite VI (unique), the distinct concavity in the middle of the posterior margin of tergite VIII, and by the shape of the spermatheca.

**Distribution and natural history:** The type locality is situated in Min Shan, North Sichuan (Map 1). The type specimens were sifted at an altitude of 3000 m.

***Chinecallicerus grandicollis* nov.sp.** (Figs 26-32, Map 1)

**Type material:** Holotype ♀: "CHINA - Yunnan, Gaoligong Shan, pass SW Baoshan, 4.-6.VI.2006 Jeniš / Holotypus ♀ *Chinecallicerus grandicollis* sp.n., det. V. Assing 2018" (cAss).

**Etymology:** The specific epithet (adjective) alludes to the relatively large pronotum.

**Description:** Body length 4.3 mm; length of forebody 2.1 mm. Habitus as in Fig. 26. Coloration: head blackish; pronotum and elytra brown; abdomen dark-brown with the posterior margins of the segments broadly yellowish-red; legs dark-yellowish; antennae dark-brown with the basal two antennomeres slightly paler; maxillary palpi brown with the apical palpomere pale-yellowish.

Head (Fig. 27) distinctly transverse, 1.12 times as broad as long; posterior angles weakly marked; punctation rather sparse and extremely fine, visible only at high magnification; interstices with shallow, but distinct microsculpture. Eyes moderately convex and approximately as long as postocular region in dorsal view. Antenna (Fig. 28) 1.65 mm long and massive; antennomeres IV distinctly transverse, V-IX weakly transverse, X approximately as long as broad, and XI approximately as long as the combined length of IX and X.

Pronotum (Fig. 27) distinctly transverse and large in relation to head, approximately 1.2 times as broad as long and nearly 1.4 times as broad as head, broadest approximately in the middle; disc very weakly convex in cross-section; punctation dense and extremely fine; microsculpture very shallow.

Elytra (Fig. 27) slightly shorter than pronotum; punctation very dense and fine, but more distinct than that of head and pronotum; interstices with shallow microsculpture. Hind wings fully developed.

Abdomen (Fig. 29) narrower than elytra; tergites III-V with shallow anterior impressions; anterior portions of tergites III-V with very fine scattered punctation; remainder of tergites III-VI with moderately dense and fine punctation; tergite VII with sparse punctation; interstices with extremely fine and shallow transverse microsculpture visible only at high magnification; posterior margin of tergite VII with palisade fringe.

♂: unknown.

♀: posterior margin of tergite VIII broadly and weakly convex (Fig. 30); posterior margin of sternite VIII weakly convex, in the middle indistinctly concave (Fig. 31); spermatheca (Fig. 32) with truncate distal portion and very short proximal portion.

**Comparative notes:** This species is distinguished from all its congeners by the combination of a large (in relation to head), distinctly transverse, and weakly convex (cross-section) pronotum with very fine punctation, massive antennae, very fine and scattered punctation of the anterior portions of tergites III-VII, and by the distinctive shape of the spermatheca.

**Distribution:** The type locality is situated in the Gaoligong Shan in the northwest of Yunnan province, China (Map 1). Additional data are not available.

***Chinecallicerus trituberculatus* nov.sp.** (Figs 33-41, Map 1)

**Type material:** Holotype ♂: "CHINA - Yunnan [CH07-15], Baoshan Pref., Gaoligong Shan, 29 km ESE Tengchong, 24°55'37"N, 98°45'09"E, 2350 m, dev. decid. forest, litter, wood, fungi sifted, 1.VII.2007, M. Schülke / Holotypus ♂ *Chinecallicerus trituberculatus* sp.n., det. V. Assing 2018" (MNB).

**Etymology:** The specific epithet (adjective) alludes to the pronounced tubercles on the male tergites III, IV, and VII.

**Description:** Body length 5.1 mm; length of forebody 2.2 mm. Habitus as in Fig. 33. Coloration: head and pronotum blackish; elytra blackish with the vicinity of the suture slightly and diffusely paler; abdomen black with the posterior margins of tergites III-VI and the posterior portions of tergites VII and VIII reddish; legs yellowish-red; antennae brown with the basal two antennomeres slightly paler; maxillary palpi brown with the apical palpomere pale-yellowish.

Head (Fig. 34) distinctly transverse, approximately 1.15 times as broad as long; posterior angles weakly marked, nearly obsolete; punctation moderately sparse and extremely fine, visible only at high magnification; interstices with shallow traces of microsculpture visible only at high magnification. Eyes distinctly convex and large, longer than postocular region in dorsal view. Antenna (Fig. 35) 1.6 mm long and massive; antennomeres IV weakly oblong, V approximately as long as broad, VI-X weakly transverse, and XI approximately as long as the combined length of IX and X. Maxillary palpomere III distinctly dilated.

Pronotum (Fig. 34) conspicuously large in relation to head, 1.13 times as broad as long and 1.6 times as broad as head, broadest in posterior half; disc moderately convex in cross-section; middle of posterior margin strongly produced posteriad; punctation dense and fine; interstices without microsculpture.

Elytra (Fig. 34) approximately 0.8 times as long as pronotum; punctation very dense, fine, and granulose, more distinct than that of head and pronotum; interstices with shallow microsculpture only in anterior portion. Hind wings probably fully developed.

Abdomen (Figs 36-37) narrower than elytra; tergites III-V with shallow impunctate and glossy anterior impressions; anterior portions of tergites VI-VII impunctate; remainder of tergal surfaces with moderately dense (tergites III-V) or sparse punctation (tergites VI-VII); tergites glossy, with extremely fine and nearly obsolete transverse microsculpture visible only at high magnification; posterior margin of tergite VII with palisade fringe.

♂: tergites III, IV, and VII each with pronounced median tubercle posteriorly (Figs 36-37); posterior margin of tergite VIII truncate in the middle (Fig. 38); posterior margin of sternite VIII obtusely pointed (Fig. 39); median lobe of aedeagus 0.5 mm long and shaped as in Figs 40-41.

♀: unknown.

**Comparative notes:** This species is distinguished from all its congeners by a conspicuously large (in relation to head) and posteriorly strongly produced pronotum and by the male primary and secondary sexual characters (tubercles on tergites III, IV, and VII; shape of aedeagus). It additionally differs from the geographically close *C. grandicollis* by darker coloration, larger eyes, the shapes of antennomeres IV-X, dilated maxillary palpomeres III, and granulose punctuation of the elytra.

**Distribution and natural history:** The type locality is situated near Tengchong in the Gaoligong Shan, Northwest Yunnan, China (Map 1). The holotype was sifted from litter in a degraded deciduous forest at an altitude of 2350 m.

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### Zusammenfassung

Sechs Arten der Gattung *Chinecallicerus* ASSING, 2004 werden beschrieben und abgebildet: *Chinecallicerus carinatus* nov.sp. (China: Nord-Sichuan), *C. orbiculatus* nov.sp. (China: Süd-Sichuan), *C. transversus* nov.sp. (China: Nord-Sichuan), *C. granulosissimus* nov.sp. (China: Ost-Qinghai), *C. grandicollis* nov.sp. (China: Northwest-Yunnan) und *C. trituberculatus* nov.sp. (China: Northwest-Yunnan). Ein Name wird synonymisiert: *Chinecallicerus schuelkei* ASSING, 2004 = *Aloconota sinica* PACE, 2011, nov.syn. Eine aktualisierte Bestimmungstabelle der *Chinecallicerus*-Arten wird erstellt. Einschließlich der neuen Taxa enthält die Gattung derzeit 13 Arten, von denen acht aus der chinesischen Provinz Yunnan, vier aus Sichuan und eine aus Qinghai nachgewiesen sind. Alle Arten sind nur von ihrer Typuslokalität bekannt, neun Arten sind ausschließlich durch ihre jeweiligen Holotypen vertreten. Die Verbreitung der *Chinecallicerus*-Arten wird anhand einer Karte illustriert.

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Author's address:

Dr. Volker ASSING  
Gabelsbergerstr. 2  
D-30163 Hannover, Germany  
E-mail: vassing.hann@t-online.de